

value of this work will be perceived when it is remembered that at no time since relations commenced between China and the West has the former been so powerful—we had almost said aggressive—as now. She is drawing closer to us as time goes on, but there is no evidence that the tenacity of her hold on her ancient political doctrines is relaxing. For those who will give it careful study Mr. Faber's work is one of the most valuable of the excellent series to which it belongs.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to ensure the appearance even of communications containing interesting and novel facts.]

Primitive Traditions as to the Pleiades

IN Dr. Tylor's recent review in NATURE (vol. xxiv. p. 529) of Mr. Dawson's work on the "Folk-Lore of the Natives of Victoria," he refers to their tradition of "the lost Pleiad," and assumes that it must have been borrowed by them from Europeans. The indefatigable Astronomer Royal for Scotland, conceiving that my researches as to the Pleiades, and especially as to traditions respecting those stars among the Australians, had been improperly ignored, wrote a letter to the Editor of NATURE, which, having been submitted to Dr. Tylor, was sent to my Canadian address, with his reply, by Prof. Piazza Smyth, and has only reached me within the past week.

Dr. Tylor states that he has frequently heard of my researches respecting the Pleiades, but has never met with any publication of mine on the subject; and that he would be much surprised if I could show that the story of the "Lost Pleiad" is really a primitive and original myth of savages.

Before touching on that point I think it but right to say that, so far from feeling aggrieved by the omission, I am afraid that I rather owe an apology to Dr. Tylor and to anthropologists for not having long ago published the results of my labours.

If a paper on the subject would have been only read and used by Tylors and F.R.S.s., I should long ago have given them the substance of the fruits of my investigations. Unfortunately there are scores of imaginative persons who have a fondness for discussing scientific novelties, without having the caution and training necessary for such work. Hence the unfortunate discoverer or explorer of any new and difficult field of research is apt to find that, long before he feels justified in inviting the attention of the scientific world to his favourite subject, it has been invaded and discredited by hasty theorists; and that his first work is the unpleasant task of clearing the field of the rubbish with which it has been encumbered.

Now there are few subjects as to which greater caution is needed than that of anthropology, and especially that branch which deals with the myths and religious ideas of savages. Dr. Tylor's works are therefore very satisfactory, as they contain a vast mass of facts, and evince an entire absence of fanciful or hasty theories. Had I confined my researches to the study of the folk-lore of savages I should never have supposed that the Pleiades deserve the prominence which my conclusions have assigned to them.

As my researches are unknown to most persons, and only imperfectly known to a few through my privately printed journals of investigations, letters, &c., having been partially published by others, permit me to explain the course of my investigations, and the grounds for my conclusions as to the Pleiades and their influence on the calendars and mythologies of nations.

It is now almost a lifetime, some thirty years ago, since I first noticed the universality of the number seven on ancient symbolism. As seven stars frequently met me as an architectural symbol, or a religious emblem in the New World, as well as in the Old, sometimes too in connection with the prehistoric cross, I suspected that these stars must have been the Pleiades, and that they must have in some way consecrated that symbol and the number seven, a number, too, which I had noticed as being prominent in the grouping of some prehistoric structures. Why such apparently unimportant stars should have once acquired

such world-wide significance I was utterly unable even to offer a conjecture.

After corresponding with Mr. Pre-cott, Sir Austin Layard, and others on this subject, I made up my mind that I had got hold of the wrong end of a very important inquiry, and that for years to come I must carefully collect facts and religiously avoid hasty generalisation.

On subsequently paying my first visit to England the late Sir Henry Ellis, the editor of "Brand's Popular Antiquities," requested me to prepare a paper on the coincidences of customs among savages and civilised nations, and I accordingly selected those connected with the Feast of Ancestors, as I found that my references and notes on it were very numerous.

I had previously noticed that a Spanish Jesuit missionary had expressed surprise that the Peruvians and Christians observed the feast of the dead on the same day—the second of November. I of course looked on the coincidence as purely accidental, but when I had written a paper giving the results of my notes, to my great amazement I found that this coincidence was very widely spread, and that the feast of ancestors was very generally held about the beginning of November. Here then was a truth not hitherto "dreamed of in our philosophy"; and I therefore thought it prudent to defer reading my paper until I could solve the mystery.

How could this singular coincidence have been caused and preserved throughout the world, in the northern as well as in the southern hemisphere? It was plain that this festival must have been regulated by something very simple and plain, such as the rising of some star. If this was the case, then it was equally clear that that star must have been very carefully observed throughout the world, and may therefore have become an object of peculiar reverence. I at once thought of the widespread symbolism of the Seven Stars, which I had long before noticed, and therefore, as I was not an astronomer, I asked Prof. Everett, F.R.S., then a professor in King's College, Windsor, Nova Scotia, whether the Pleiades could ever have risen in November. He of course replied in the negative, for it must have been at least twelve thousand years since those stars rose heliacally at that time of the year. I had, however, my conjecture fully confirmed by finding that in one of the most ancient calendars in the world, that of the Brahmins of Tirvalore, the name of November was *Kartica* ("the month of the Pleiades"). I subsequently found a year, still in use in Polynesia, regulated by the rising of the Pleiades at sunset, or by their being visible all night long, and I also discovered that the three days' feast of the dead was also held in November by the Australian savages as a great annual corroboree in honour of the Pleiades. Since then I have found this primitive calendar, or fossil traces of it, all over the world.

I also found that early astronomers constructed great years or cycles on the basis of this simple calendar, which were also regulated by the Pleiades. With this calendar and its festivals and these cycles I found flood traditions and primitive myths associated, and that the key to some of the most remarkable features in early religions and traditions is to be found in the year of the Pleiades.

In 1863 I printed privately a paper of 103 pages on the Feast of the Dead, and the calendar of which it was a new year's festival, and in 1864 a second paper on the connection of the Pleiades with the cycles of the ancients and with prehistoric chronology.

As Prof. Piazza Smyth, in 1865, was intending to carefully measure and examine the Great Pyramid, I sent him a copy of my papers, as I believed that my early impressions as to the connection of the Pleiades with primitive architecture would prove to be well founded. In his work on the Pyramid he republished seventy pages of my first paper, my request that it should not be published having fortunately reached him too late.

My excuse for this long delay is the desire, before publishing my conclusions, to work out many interesting problems connected with the Pleiades and early myths and religious beliefs, and the great difficulty of such inquiries; for the era when the Pleiades thus left their impress on the calendars and traditions of nations must be very remote, so much so that such researches are like investigations into the fossils that tell of organisms that lived in a world and breathed an atmosphere different from our own.

I am, however, preparing at last to bring out a work which will deal with the connection of the Pleiades, first, with the calendars, festivals, and cycles of nations; and next, with the myths and traditions associated with the year of the Pleiades. I

had recently intended to have published some articles which I had prepared on the connection of the Pleiades with primitive ideas as to Paradise, but it seemed prudent to defer doing so, and to bring out the whole subject in one volume. To show, however, how widely spread these traditions as to the Pleiades are, I may attempt to give the information which Dr. Tylor invites, as to the myth of the lost Pleiad being a heritage among savages. Those stars are only apparently six, yet all the world over, among civilised and savage races, in Europe, in India, China, Japan, America, and Africa, this diminutive star group is not merely regarded as seven stars, but what is still more surprising, as "*The Seven Stars*," though the far brighter seven stars of the Great Bear might seem to deserve the title.

There are various myths to account for the missing Pleiad, but one I think will suffice to show that the Australians did not borrow the idea from Europeans.

I once asked a native of the Gold Coast, a negro Hercules in strength, who had therefore been christened (probably by some pious naval officer) *Fivehorsepower*, whether he knew anything of the stars. "No!" he replied, "I know nuffin about de stars." "But don't you know anything of 'the seven stars'?" "Oh yes, of course," he answered; "every nigger knows de seben stars." "Why do you call them seven?" I asked him; "can you count seven stars?" "No," he replied, "you count one, two, three, four, five, six; then toddler one hide herself, no let you count her." There is also a savage tradition, which I can recollect, that the Pleiades are young women, six of whom are very beautiful, but the seventh is so plain that she conceals herself from sight.

Some tribes of the Australians dance in honour of the Pleiades, because "they are very good to the black fellows." Was this borrowed through Europeans from "the sweet influences of the Pleiades" which Job celebrates?

Ask a negro in the Southern States to look through a telescope, and he will invariably turn it towards the Pleiades, "for they are berry good to the darkies." The natives of America, both North and South, regard the Pleiades as beneficent stars, and dance in their honour. "Oh what do we owe to thee!" is the grateful salutation of one tribe. Whence then did this arise? It was not merely because those stars announced spring, and were "stars of rain," or because they were "for signs, and for seasons, and days, and years," but also because they were connected with the idea of Paradise and the abode of the Deity. The problematical theory of Moedler, that Alcyone, the brightest of the Pleiades, is the central sun of the universe, is most interesting on account of the singular fact that such was actually the belief of early ages. I have within the past year found unexpected, and I think conclusive, proofs that the name *Alcyone* (or rather, *Alkyone*), meaning a centre, pivot, or turning-point, was not given without some reason to that star, for the ancients in very remote ages undoubtedly believed that it was the centre of the universe, and that Paradise, the primal home of our race and the abode of the Deity and of the spirits of the dead, was in the Pleiades, traces of which ideas we even find among savages.

The *Alkyonic Lake*, the waters of which led to the world of spirits, must have meant simply "the waters of death" leading to Alkyone or Paradise, and reminds us of Ulysses' voyage to the abodes of the dead and to the Gardens of Alkynōs.

With the Pleiades, too, sacred birds (birds of paradise) were connected. In my journal of researches (1863) I expressed my conviction that *Manu* (a word meaning, in the Indian Archipelago, a fowl or bird) would be found to have been connected with the Pleiades. I have been recently gratified at finding that in far-distant Samoa there is a sacred bird called, not *Manu-ali*, the royal bird, as some European writers have assumed, but *Manu-lili*, the bird of the Pleiades.

What a singular link we have here between the folk-lore of these savages and that of the Old World, for to this very day, from Britain to Japan, the Pleiades are popularly known as "the hen" or "hen and her chickens."

In Mexico the beautiful kingfisher was a sacred bird. May not the name of the same bird in Greece have been a survival of similar ideas, as it was called the *Halcyon*, i.e. belonging to Alcyone, or a bird of paradise?

The bright sunny days, too, at the end of autumn, that shining season of the Pleiades, called in America the Indian summer, were *Halcyon* days among the Greeks, which we should now render heavenly days.

Even if the theory of prehistoric astronomers and of some

modern men of science, that the Pleiades are the centre of the universe, should prove to have been unfounded, I am persuaded that the day is coming when the learned will admit that those stars are the "central sun" of the religions, calendars, myths, traditions, and symbolism of early ages—an era, however, so marvellously remote, that investigations respecting it bear the same relation to the study of anthropology and to the science of religion that palæontology does to natural history.

I shall be greatly disappointed if I cannot satisfy even so cautious and careful an observer as Dr. Tylor, that there is a mass of original and primitive traditions as to the Pleiades among isolated savages in various quarters of the globe.

In the meantime, until these conclusions are submitted in a proper and scientific shape to the learned, Dr. Tylor is perfectly justified in adopting the prudent legal maxim, *De non apparentibus et non existentibus eadem est ratio*.

I may however invite his attention to Mr. Ernest de Bunsen's recent work on the Pleiades—"The Pleiades and the Zodiac," published in German (Berlin, 1879), and his recent learned work, the "Angel Messiah." The former he has kindly dedicated to me as the pioneer in this new and difficult field of research.

R. G. HALIBURTON

The Pronunciation of Deaf-mutes who have been Taught to Articulate

IN NATURE (vol. xxv. p. 72) it is reported that at the last meeting of the French Academy M. Hébert made some observations to show that deaf-mutes who have been taught to articulate speak with the accent of their native district. This curious circumstance, which was contested by M. Blanchard, has already been recorded. One case is given in an old number of the *Philosophical Transactions*, No. 312. About the age of seventeen a young man, a congenital deaf-mute, was twice attacked by fever. "Some weeks after recovery he perceived a motion of some kind in his brain, which was very uneasy to him, and afterwards he began to hear, and, in process of time, to understand speech. This naturally disposed him to imitate what he heard, and to attempt to speak. The servants were much annoyed to hear him. He was not distinctly understood, however, for some weeks; but is now understood tolerably well. But what is singular is that he retains the Highland accent, just as Highlanders do who are advanced to his age before they begin to learn the English tongue. He cannot speak any Erse or Irish, for it was in the Lowlands he first heard and spoke." The curious circumstance of his possession of the Highland accent is confirmed by the testimony of similar phenomena in the deaf and dumb schools of Spain. "One fact," says Ticknor, "I witnessed, and knew therefore personally, which is extremely curious. Not one of the pupils, of course, can ever have heard a human sound, and all their knowledge and practice in speaking must come from their imitation of the visible mechanical movement of the lips and other organs of enunciation by their teachers, who were all Castilians, yet each speaks clearly and decidedly, and with the accent of the province from which he comes, so that I could instantly distinguish the Catalonians and Biscayans and Castilians, whilst others, more practised in Spanish, felt the Malagan and Andalusian tones" ("Life and Journals of George of Ticknor," vol. i. p. 196, London, 1876). A similar case has been mentioned to me by Mr. J. J. Alley of Manchester. E. R. became deaf and dumb at a very early age, and did not talk until he was about seventeen, when he was taught articulation by Mr. Alley. He speaks with the accent of his native county of Stafford. These facts are cited in my paper on "The Education of the Deaf and Dumb," in the "Companion to the Almanac" for 1880.

WILLIAM E. A. AXON

Tanganyika Shells

IN the *Proc. Zool. Soc. Lond.* for May, 1881, pp. 558-561 Mr. Edgar A. Smith has described two new species of shell from Lake Tanganyika, Africa, for which he has proposed the new generic name of *Paramandania*. These forms are, without doubt, generically identical with the *Pyrgulifera humerosa* of Meek (see U.S. Geol. Sur. 40th Parallel, by Clarence King, vol. iv. p. 176, pl. xvii, Figs. 19 and 19a), which antedates Mr. Smith's name by at least five years. Mr. Meek's species has hitherto been the only known member of the genus, either fossil or recent, and was only known to occur in the strata of the